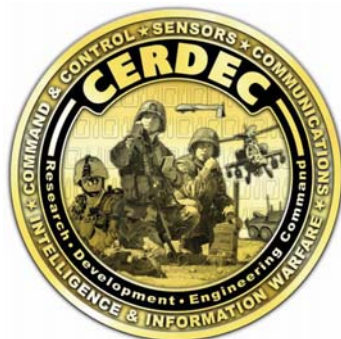


Power Generation and Alternative Energy Branch

US Army RDECOM CERDEC CP&ID Power Division

Aberdeen Proving Ground, MD



PGAE - TR - 12 - 14

Tactical Idle Reduction for Heavy Tactical Vehicles Product Brochure

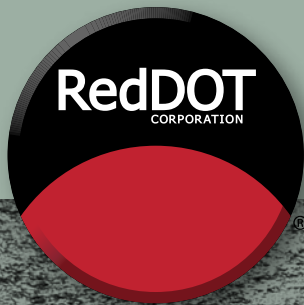
US Army CERDEC CP&ID, Red Dot Corporation

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Report Documentation Page				Form Approved OMB No. 0704-0188	
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HEATER - AIR CONDITIONER

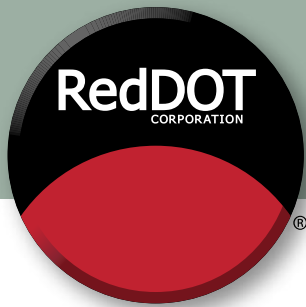
Red Dot Military **TIR**

TACTICAL IDLE REDUCTION

Red Dot & Impco Technologies were awarded a government (CERDEC CP&ID) contract to develop a military grade tactical idle reduction (TIR) and environmental control unit (ECU) with the objective of reducing main engine idle time along with providing heating/cooling to cab occupants.

TIR





HEATER - AIR CONDITIONER

Red Dot Military **TIR**

TACTICAL IDLE REDUCTION

Tactical Idle Reduction for Heavy Tactical Vehicles Technology Transition Initiative (TTI)

SPECIFICATIONS

Cooling: 16K BTU/hr @ 90°Fdb/75°Fwb, 125°F condenser air in

Heating: 17K BTU/hr fuel fired coolant heater

Engine: 2-cylinder diesel, 16.8 HP @ 3600 RPM

DC Generator: 5.3kW Pancake PMG

1800 Watt AC True Sine Inverter

0.427 Gal/hr JP-8 fuel consumption in max Cool mode

Estimated 0.620 Gal/hr max JP-8 fuel consumption (Cool + Power mode)

-25°F to 140°F operation temperature range

BENEFITS

Maintain C4ISR and IED-defeat capabilities when prime engine is off

870 gallons per year per vehicle fuel savings

\$12,000 annual operating cost savings compared to idling prime engine (fuel @ \$15/gal)

Significant additional operating cost savings over lifecycle through reduced prime engine use



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